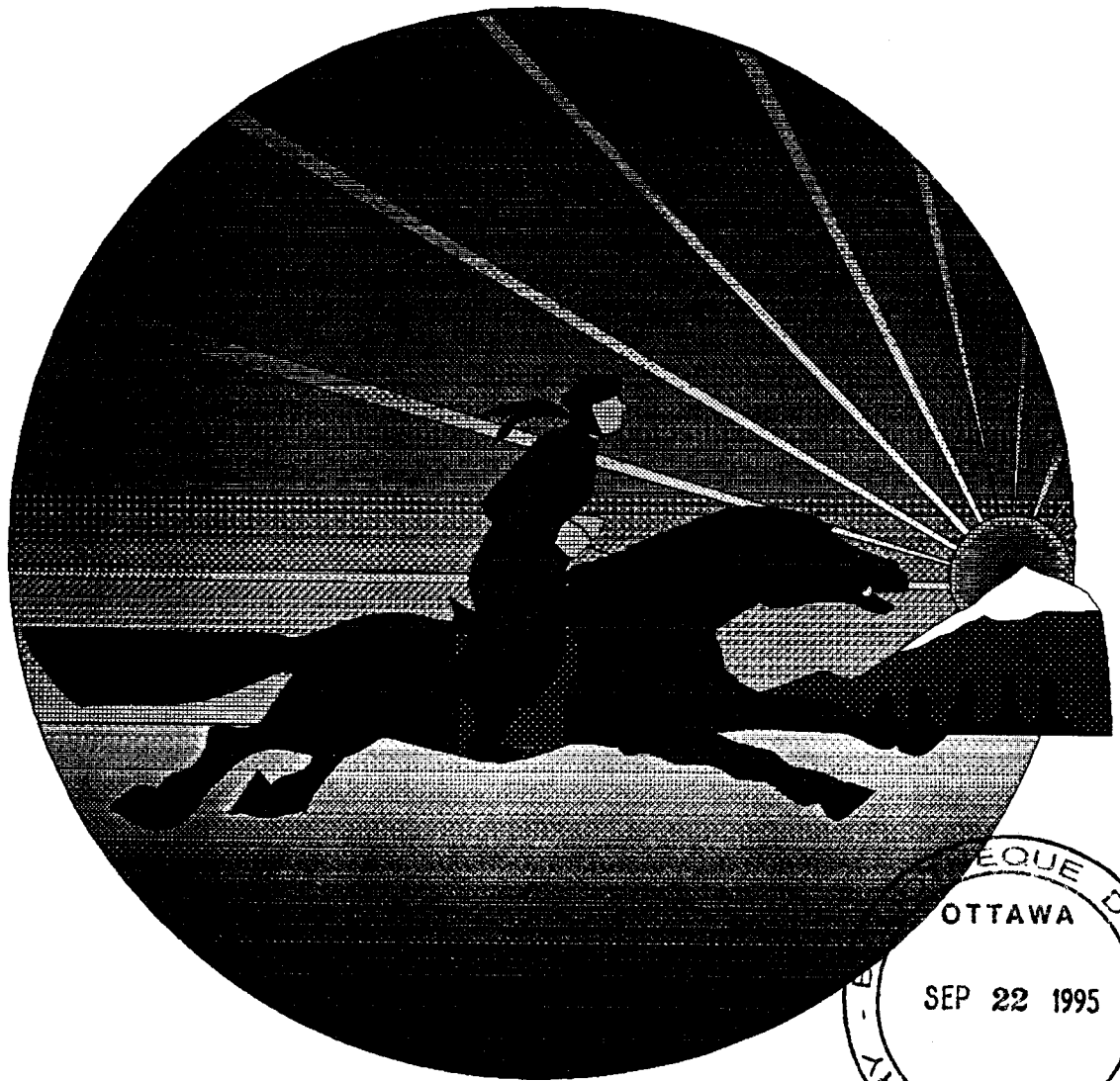


# MONGOLIA



Country Report & Development Prospects

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**MONGOLIA**  
**COUNTRY REPORT AND DEVELOPMENT PROSPECTS**

**A Report to**  
**The International Development Research Centre**

**by**

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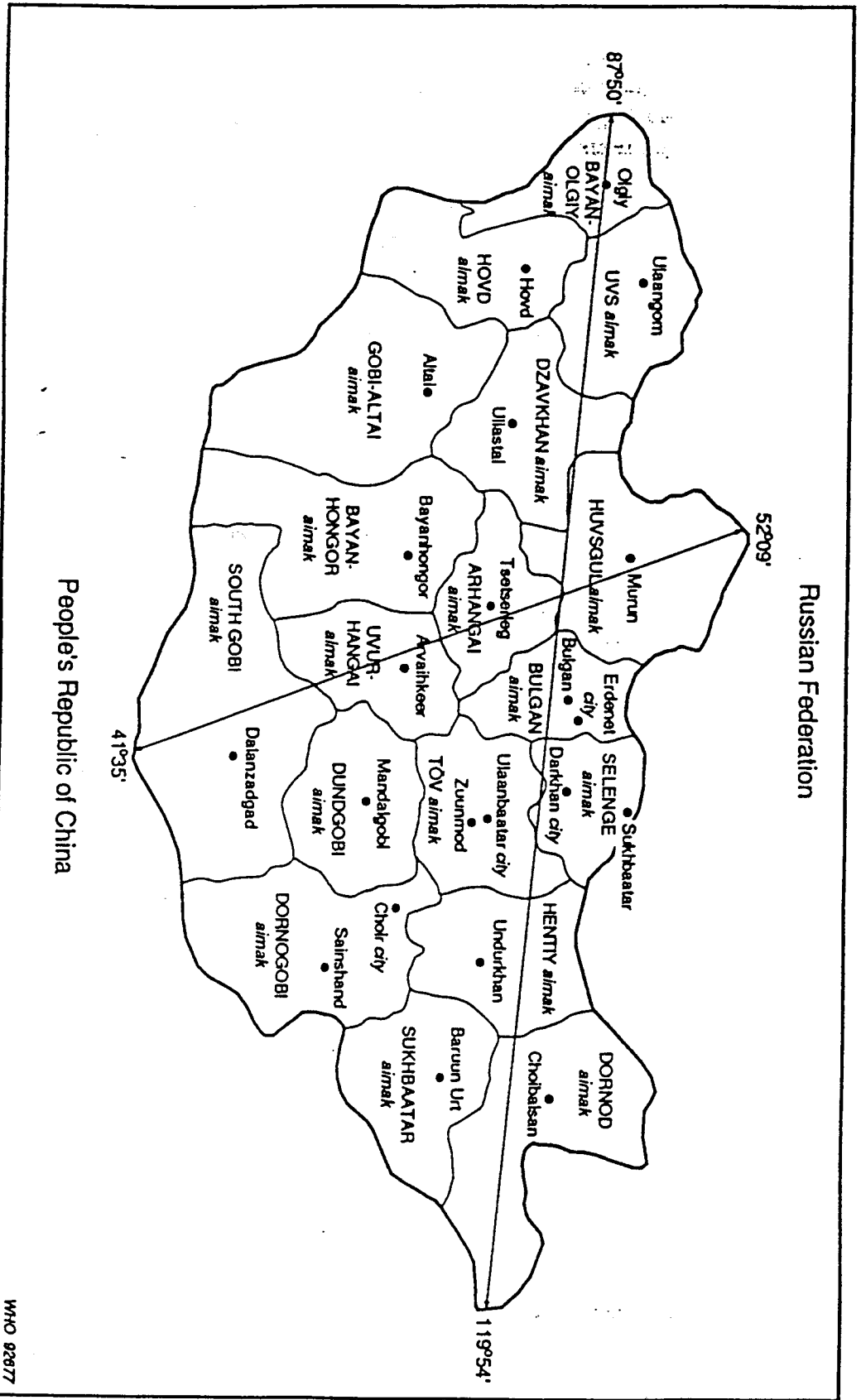
**Ottawa  
April 1994**

*In Xanadu did Kubla Khan  
A stately pleasure-dome decree:  
Where Alph, the sacred river, ran  
Through caverns measureless to man  
Down to a sunless sea.  
So twice five miles of fertile ground  
With walls and towers girdled round:  
And there were gardens bright and sinuous rills  
Where blossom'd many an incense-bearing tree;  
And here were forests ancient as the hills,  
Enfolding sunny spots of greenery .....*

**Kubla Khan**  
Samuel Taylor Coleridge  
(1772-1834)

Note: The Mongol ruling class remained unassimilated and separate from Chinese life in Kubla Khan's time and the Khan kept his summer palace outside the Great Wall of China at a place called Shang-du (Coleridge's "Xanadu"), but meaning "superior capital" in Chinese. Western authors have been fascinated by Mongolia down to the present time where it has been depicted as Shangri-la, a land of milk and honey. Socialist realism also encouraged the picture of a land of eternally singing peasants. But life on the Steppe has never been idyllic. It has always been a struggle against the forces of nature and the isolation of its population.

# Administrative units of Mongolia



## FOREWORD

This report was commissioned by the International Development Research Centre (IDRC) who is initiating a programme of development research in Mongolia. Primary responsibility for programme development in that country rests with the Centre's Asian Regional Office (ASRO) in Singapore. The report provides background for a country visit and identification of possible entry points for a programme of development assistance.

The report was to provide:

- ° a brief economic, social, political and cultural perspective of Mongolia;
- ° mandates of key institutions (government and non-government) and, within them, names of key personnel who are carrying out major roles in support of the development research agenda, priority setting and research management;
- ° advice on the main development problematique, concerns and challenges as well as any priorities that may have already been outlined through strategic planning by government authorities and non-government organizations in Mongolia;
- ° information about any ongoing and planned work of other development agencies (whether Canadian, international, regional or national, and whether government or private sector) that are active in Mongolia, whether operating from inside or outside the country;
- ° comment on the research and administrative capacities of government, academic and indigenous NGO institutions in Mongolia in undertaking collaborative development research work with IDRC support;
- ° suggestions on possible entry points for initializing IDRC's programming in Mongolia;
- ° listing of the institutions which the IDRC team should meet with;
- ° suggestions of appropriate authorities which could be approached to host the IDRC's team's visit;
- ° organizational structure of the Government of Mongolia; educational and training structure; lists of academic institutions, specialized institutions and schools, and centres of excellence (if any); and
- ° list (with annotations) of Canadian institutions/individuals with expertise and linkages in Mongolia.

## PREFACE

The "Golden Horde", the "Storm from the East" or simply the "Barbarians" depending on where and when one first met them, aptly described the Mongols. The emergence of these conquerors of the world out of the mysterious, arid wastes of Central Asia has demanded an explanation for centuries, and even now the background to these enigmatic people is little understood.

The Mongols were not fanatical crusaders; nor were they empire builders *per se*. Neither did the desertification of Central Asia force them to colonize more temperate climes. No one historical theory can be sustained. Pastoral societies like that of the Mongols who were fully nomadic tend to suffer from chronic instabilities - lack of self-sufficiency in cereals and forage, clan rivalries and skirmishes over water rights were constant incentives to expansion towards more suitable supply bases.

In terms of conquest and military development, the Mongols possessed a dominant weapon that lasted well into the present century - cavalry. But the world has never witnessed a cavalry so perfected as that of the Mongols. Clad in leather and furs over silk undergarments, leading strings of extra horses as remounts, and capable of living in the saddle for as long as ten-to-twelve days at a time, Mongolian cavalry could cover distances which seem incredible even by present day standards - 275 miles in three days, living on mare's milk (airag) and, as a last resort, the blood of their horses. In times of peace, the cavalry tradition was put to good use. The famous Mongol postal service with its intricately planned staging posts across Asia could deliver "mail" to and from Mongolia to Europe in less than three weeks.

Blend all these elements together under a dynamic political leadership able to unite diverse tribes and galvanize their latent energy into conquest of weak and vacillating states on their periphery and you have a recipe for successful expansion. This is what came out of Central Asia in the thirteenth century. Persia, as well as Asia Minor, was overrun, China and Korea followed. In 1237, Mongol hordes crossed the Volga into Europe, burned Moscow, seized Kiev, invaded Poland, laid siege to Budapest and terrorized the Danube Valley. But in 1241, they packed up their equipment and quietly one night abandoned their invasion and returned beyond the Urals just as mysteriously as they had arrived. No one is sure why. It is said the death of the Great Khan back in Mongolia was a reason, but the Mongols did not return to Mongolia, instead preferring to stay for two hundred years in central Russia where they seemed to put down roots. Thus, Russia and China share a common background having felt the heavy hand of Mongol occupation over several generations.

Historians have attributed much of Mongolia's successes in the past to one ruler - Ghengiz Khan, an aristocrat by birth but who grew up, fatherless, the vassal of a powerful, local chieftain. How Ghengiz mastered the complex tribal politics, combining

physical prowess with such attributes as loyalty, cunning, ruthlessness and treachery is not known, but close on his maturity he was able to successfully rebel against all authority until in 1206 he was confirmed by all tribes as Ghengiz Khan, which means something like "universal ruler". He then built up a formidable political structure, the first of its kind in Mongolia, based on centralized authority. He drafted laws and a kind of "parliament" which covered all aspects of Mongolian society. One of his greatest attributes, however, it is said was his ability to assimilate ideas and learn from the people. Which is where we find Mongolia today. After centuries of isolation, subjugation and decline, Mongolians are again eager to adopt innovations, welcome change and tap into global knowledge. As for Ghengiz Khan, after seventy years of socialism where mere mention of his name was cause for suspicion, he is now rehabilitated. His benign face oversees every financial transaction from the prominent position on the local currency.<sup>1</sup>

### **Acknowledgements**

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<sup>1</sup>All dollars in this report are in US currency.

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## INTRODUCTION AND GENERAL BACKGROUND

### Geography

Map projections in current atlases do not give an accurate idea of the size of Mongolia. Visitors can be taken aback by the vast distances. It stretches some 2,400 km from west to east and about 1,260 km from north to south, bounded by Russia to the north and China to the south. The total length of its frontier is 8,158 km. Superimposed on a map of Europe, Mongolia would stretch from Amsterdam to Moscow and from Copenhagen to Venice. It is mountainous with an average altitude of 1,580 metres above sea level. The country has great environmental diversity. In the northwest, there are high mountains, lakes and forests, whilst in the south lies the Gobi Desert; the rest is semi-arid grassland - steppe.

The climate is continental and this, coupled with the high altitude and mountain ranges, makes for extreme weather conditions. There are seven to eight months of freezing temperatures, but with an extremely hot summer for about three months of the year. Winter begins at the end of September and lasts well into May. But the coldest months are mid-December to mid-March where lows of -40C are common in the capital. Ulaan Baatar shares the record with Ottawa for the two coldest capitals in the world. Bitter winds add a severe wind chill factor. During winter, Ulaan Baatar is affected by a pall of lignite smog from coal-burning stoves and power stations. There is a lot of snow but high winds tend to blow most of it away. These facts need to be borne in mind not only for an official visit but also for future project development. Ulaan Baatar is on a district heating system and, at present, the fuel supply in winter can be erratic causing frequent brown-outs.

### Human Geography and History

Mongolia has a population of some 2,247,068, of which 45 percent are nomadic herdsmen. The only important minority is the Kazakhs in the far west. Ulaan Baatar has a population of some 530 million with a population density of 264 inhabitants per sq. km. *There* There is increasing rural to urban immigration, which in the last four years seems to have reached crisis point, putting pressure on already fragile urban services such as health, housing and education.

The Mongols are a homogeneous group who despite seventy years of Russian hegemony have succeeded in retaining a unique culture, religion and language. Archaeological finds have established the Mongols as a distinct people as early as the second millennium BC. The primitive tribal system was unified by Ghengiz Khan whose expansionist policies resulted in the occupation of much of the known world in the thirteenth century. The decline of the Mongol Empire by the mid-1300 AD is not well understood, and in 1691 AD Mongolia became a province of China. There was a great deal of out-immigration; the south (Inner Mongolia) was ceded and colonized by China. There was a brief period of independence following Sun Yat Sen's revolution in 1911, but this lasted only until 1919

when China once again re-asserted suzerainty. Mongolia achieved independence in 1921 and set up a constitutional monarchy. In 1924, a socialist state was formed. Alignment with the Soviet Union followed. The regime was strictly Stalinist in nature and pro-Moscow in international relations. The unifying feature during those turbulent years was the traditional communal herdsman's way of life which has survived since primitive times to the present day.

Changes in the Soviet Union in the past four years have had a traumatic effect on Mongolia which finds itself outpaced by Soviet political changes as well as economic reforms in China, which lead to domestic, social and economic tensions, many of which are unresolved at present. The main goal of the government is to turn Mongolia into a market economy. The transition has not been an easy one and has resulted in a shrinking of the GDP by 10 percent in 1991, 8.5 percent in 1992, and a further 2.5 percent in 1993.

### **The Political System**

The People's Republic of Mongolia was established in 1924 and aligned itself politically, economically and militarily with the Soviet Union. The Mongolia People's Revolutionary Party (MPRP) organized a centrally planned economy and through a series of purges destroyed all political and religious opposition. During the Sino-Soviet split in the 1960s, Mongolia supported the Soviet Union and relations with China soured. This period was marked by the deepening institutionalisation of the command economy and total reliance on the Soviet Union and CMEA for external trade, essential supplies and telecommunications.

In 1984, the MPRP ousted from office General Secretary Tseckenbal and a more moderate-minded government headed by Mr. Batmonkh was formed. Certain reform measures were introduced, designed to improve economic management and reduce central planning, together with more freedom of speech - a policy known as "il tod". But, Mongolian reforms were outpaced by events in the Soviet Union which by the late eighties was on a rollercoaster headed towards radical restructuring of a type not contemplated in Mongolia. Economic reforms and the democracy movement in China increased tensions in Mongolia. A new government headed by Mr. P. Ochirbat was established in 1990 on a reformist platform. This led to the first multi-party elections. These elections were held under international supervision and were contested by six political parties. The ruling MPRP retained its majority. In September 1993, Mr. Ochirbat was elected President for a five-year term.

The present political structure consists of a President, Prime Minister and a two chamber Parliament : the Great Hural - which, curiously, meets just once in five years; and the Small Hural which is in session for 150 days each year. The first session took place on October 13, 1992. Apart from the MPRP, there is a coalition of four political organizations in the Small Hural - The Mongolian Democratic Union (MDU), the New Progressive Union

(NPU), the Mongolian Students Union (MSU) and the Mongolian Youth Organization (MYO). Freedom of political expression is now accepted. Apparently Mongolia has more newspapers per capita than any other country. There is an English newspaper - *The Mongolian Independent* - though this is often difficult to find on the streets. It is a useful source of local, current political comment. Freedom of the press was challenged recently when the MPRP accused a leading, popular newspaper - *Il Tovchoo* - of slander and planning a coup, but the paper was able to stand its ground. There is now a Mongolian Union of Free Journalists. The system appears to uphold free discussion.

Mongolia is divided into 18 provinces called *Aimaks*, (see map at front of this report) as well as the three cities of Ulaan Baatar, Erdenet and Darkhan. The provinces are further subdivided into some 310 districts (*somons*) and these are further divided into brigades which comprise 50 to 350 families.

### **The Economy in Transition**

The economy of Mongolia under central planning called for the fulfilment of five-year plans, with all external trade channelled through the Council for Mutual Economic Assistance (CMEA). This changed dramatically in 1990/91. The change over was supposed to be gradual and flexible in its application. In fact, it was quite abrupt and sectors have suffered the traumatic effects of rapid economic growth to transform Mongolia into a free market economy along with the privatization of state institutions.

The main measures may be summarized as follows:

- **Foreign Investment Law**, by which tax incentives are given to foreign investors with full repatriation of any profits together with guarantees against seizure of assets. Joint ventures are encouraged.
- **Free Trade** through the elimination of state monopolies. Import/export licences have been revoked and no punitive taxes are levied on trade.
- **Credit Policy** has been tightened to control the deficit and the money supply. The Central Bank issues Treasury Bills and Bonds to curb growth.
- **New Banking System** has been introduced and Foreign Banks may now operate in the country. A two-tier system has been established with the Central Bank, the Mongol Bank and eighteen new commercial banks.
- **Floating Exchange Rates** govern transactions and the Tugrik may now be freely exchanged for hard currency. During the transitory period, a preferential rate for the dollar has been kept for essential imports; other than that, the rates will float on the international market.

- **New Tax Laws** are being reformed to take account of privatization.
- **Budget Reforms** to ensure that losses by enterprises will no longer be absorbed by the State.

### **The Effects of Economic Reform**

Economic adjustment has revolved around the break-up of Mongolia's traditional trading partners in the CMEA. Annual trade and budgetary measures emanating from the former Soviet Union came to an abrupt halt. The result was that trade with Russia was reduced by 50 percent and supplies of essential commodities, as well as agricultural and industrial inputs, fell sharply. Moreover, as a result of the continuing chaos in Russia's economic system, what supplies remained became irregular and imports of consumer goods have declined sharply. Russian advisers and technicians were pulled out, leaving the Mongolian economy in a state of disarray. According to World Bank reports, seven decades of mismanagement has reduced Mongolia to one of the poorest countries in the world, with an annual per capita GNP of just US \$100 [World Bank, 1993]. External assistance came mostly from Russia and averaged 30 percent of GDP during the 1980s, falling to 20 percent in 1990 before its termination altogether. This net inflow of capital took mainly the form of trade loans, financing of turnkey projects and equipment purchases. The abrupt cessation of Russian aid stopped most infrastructure investments, essential spare parts and equipment became unavailable, .

The most notable effect has been on fuel. This is still a serious problem, so serious that all private vehicles operate with a jerry can and rubber tube to syphon gasoline into their tanks.<sup>2</sup> Contacts in Ulaan Baatar tell me that so far they have managed to get through the current winter without the usual power shortages thanks to a loan from the World Bank. MIAT has also been able to continue flights through loan arrangements for long-term fuel supply, though domestic air travel remains erratic.

The subsequent collapse of CMEA has also altered the terms of trade with former East European States, raising the cost of its exports to Mongolia to reflect their dollar values. Meanwhile, the price of Mongolia's principal export - copper - fell by 21 percent relative to the price of petroleum, the principal import. The volume of trade has also fallen. A 55 percent decline in exports was recorded in 1991, together with a 15 percent decline in imports. Remaining trade is characterized by barter with Russia for essential commodities [UNIDO, 1993].

Not surprisingly, Mongolia's economy has suffered a sharp decline in real income, estimated at around 40 to 50 percent of GDP. The economic depression has hit urban

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<sup>2</sup>During the course of my Consultancy Mission in September 1993, we frequently ran out of fuel on the way to an appointment, but with the driver often being lucky to be able to stop someone else and syphon enough out of his tank to get us to our destination.

employment for the first time. It is currently estimated to be about 12 percent with high inflation.

The situation is better in the countryside where traditional life remains more or less unchanged. Agriculture is the main supporter of the country with 20 percent share of the GDP. Livestock production is the main activity and employs 93 percent of the rural population, 39 percent of the total labour force, accounts for 70 percent of agricultural value added, and 44 percent of all exports.

**Table 1**  
**Number of Livestock, 1975-1990, selected years**  
**(thousand head)**

Animal	1975	1980	1985	1990
Camel	617.1	591.5	559.0	537.5
Horse	2,254.6	1,985.4	1,971.0	2,262.0
Cattle	2,427.0	2,397.1	2,408.1	2,848.7
Sheep	14,458.1	14,230.7	13,248.8	15,083.0
Goat	4,594.7	4,566.7	4,298.6	5,125.7
<b>Total</b>	<b>24,351.5</b>	<b>24,771.4</b>	<b>22,485.5</b>	<b>25,856.9</b>

Source: State Statistical Office

The harsh Mongolian winter takes a heavy toll on livestock and there are annually many losses because of the practice of year-round grazing. The short growing season and erratic rainfall make crop production a haphazard affair with significant year-on-year variations in production. The biggest effect on agriculture has been the privatization of herds, which by last fall (1993) had been 80 percent completed. The economic depression has been particularly hard on the agricultural sector. Both production and imports of foodstuff fell sharply since 1990 due in part to inflexible pricing policies, high cost of inputs such as fertilizer, and the particularly severe winter of 1992 which killed a great many livestock.

Privatization of the farm sector has added to the difficulties. However, with 60 percent of livestock in private hands and State Farms and Collectives broken down into some 280 private farm enterprises, modernization of agricultural structures has so far lagged behind reforms, leaving such things as price policy and market mechanisms yet to be refined so that farmers and herdsman can get a decent return for their investment. Much remains to be done in terms of land reform measures, cadastral surveys and credit policy.

## **Privatization**

The policy of handing over state-owned assets and enterprises to private hands is at the heart of economic reforms. The goal is to bring about a rapid transformation of the economy. The first phases, which involved between 4,000 and 5,000 agricultural brigades and some 1,600 small-to-medium scale enterprises (SMEs), is more or less complete. The final phase, the privatization of some 450 medium-to-large scale enterprises and State Farms is still in progress. The State still retains control of some key, essential enterprises such as power and the railways, as well as food and construction materials. But eventually, the government plans to liquidate its assets in these enterprises too.

Privatization has been hard on the general population, driving up inflation and leading to market inequities such as short-term supply problems of essential items and price distortions, and although a great deal of progress has been made management practices have changed little. Both managers and employees have little idea of what it is like to operate under free market conditions. A great deal remains to be done in the area of Company Law, Management Training and Market Research. Enterprises still need to undergo restructuring to provide for Boards of Directors, Board meetings and such commonplace practices as employee relations. From the government side, a complete abolition of the State ordering system is still needed as well as equitable access to government loans and credits. At the floor level, standards and compliance procedures need to be introduced - health and safety, and pollution controls - whilst at the higher level, policies are needed to deal with competition, monopolies and prices. Privatization has also affected the research community and most research institutions are now cut loose from the government to fend for themselves in the free market. Research is supposed to be oriented to supply and demand and market forces, with close alignment with private companies from which funding and direction is sought.

## **Industrial Development**

Because little money is available to purchase State enterprises, the government has adopted a novel approach by issuing "vouchers" for Mongolian entrepreneurs to buy shares in small enterprises.<sup>3</sup> The government also is pinning a lot of hope that this measure, together with the promotion of joint venture capital, will spur small businessmen to kickstart the economy. The plan is for the State to divest itself of some 70 percent of its assets.

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<sup>3</sup>It works this way. Mongolians have the right to obtain vouchers worth T 10,000. They can then either pool these with colleagues in order to purchase a state enterprise or buy shares. Vouchers can also be exchanged at market value. Of the T 10,000, there are T 3,000 "red" vouchers for large businesses. The other T 7,000 are "blue" for small businesses.

Currently, however, small-scale industries are hampered by lack of business know-how to establish themselves properly. Bank financing is either not available or discriminates against the small-scale entrepreneur by charging higher interest rates. Most small-scale industries need new plant and machinery, all of which must be obtained from abroad at premium prices. Foreign exchange is often not available. Because of this, the government is stressing joint ventures with foreign investors. The market is wide open for all manner of SMEs. Mongolia needs just about every basic service and commodity. Donor consultation meetings have stressed the importance of SMEs in economic development and have set up projects for nine key sectors for high growth potential and employment generation. *A Coordinating Council on Development of Small Enterprises, Trade and Services has been established under the aegis of the Ministry of Labour.* At the ministry level, there is need for institutional direction of macroeconomic and development policies, capacity building and technical training. The public sector investment programme needs an overhaul so that it is more sensitive to medium to long term priority setting which is a precondition for a sound industrial policy.

### **Health and Welfare**

Social services were given a high priority in the past. A well developed health infrastructure exists and Mongolia fares well in terms of life expectancy which is 63 years.<sup>4</sup> Mongolia has high levels of maternal morbidity and mortality because of the policy of encouraging population growth, which combined with limited contraception has led to a cycle of multiple births with little control of spacing.

In general, health conditions are satisfactory, although standards of hygiene are low in some localities and malnutrition is increasing. Certain medicines are in short supply and hospitals are often short of anaesthetics. UNICEF was in the process of opening up an office last fall and this should be operational now. Mother and child health was considered a priority. A major problem stems from the large animal population (25 million head in 1991) relative to the human population (see Table 1). This, combined with a lack of modern sanitation facilities in some sections of the city with a high density of population, attracts flies in summer when the Steppe is covered with animal feces. Contamination of food and water is high causing a high level of diarrhoeal diseases. Smog in winter, dust in summer, together with a relatively low humidity, also gives rise to respiratory diseases. The following diseases are endemic: gastroenteritis, cholera, diphtheria, meningitis, typhoid, Japanese encephalitis and infectious hepatitis. The former policy of free medical services is being replaced by a system of health insurance and user fees which is causing hardship among sections of the population. Domestic housing in Ulaan Baatar tends to be high density apartment dwellings. Since 1990, these state-

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<sup>4</sup>On the Steppe, however, it is not uncommon to find extraordinary longevity, people living in excess of 100 years. At a recent Mongol festival this author attended in 1993, the average age of the archery contestants was said to be 70 years.



owned structures have been given over to private landlords. In many cases, this has resulted in a worsening housing situation. Few landlords are willing to invest in repairs, arrange for garbage disposal or upgrade tenements. There is a growing level of urban pollution as a result of poor waste management, disposal of litter and contamination of water supplies.

## **Education**

Education accounts for about 25 percent of the State Budget. This large chunk of expenditure reflects the need to board and feed the children of herdsmen during the school year. There is a high literacy rate (97 percent) resulting from free compulsory education. The system has produced a well educated labour force in which some 16 percent have received some form of post-secondary education. Past emphasis on capital-intensive industries and widespread herding means that the new economy's ability to absorb this growing, educated labour force is somewhat limited. Unemployment, a thing unheard of in the past, is increasing at an alarming rate. The concept of user fees is also being discussed for education and plans are being considered for a system of student loans. An ADB mission in 1993 recently completed its report for education. This is currently under review by the government.

## **Environment**

The protection of the environment is very popular throughout the country. Most Mongolians are knowledgeable about their environment and the need to protect it. With great diversity of fauna and flora, as well as fragile ecosystems, Mongolia needs to adopt laws and measures that will enforce stricter controls on exploitation of its natural environment. There are some anomalies. For instance, big game hunters shut out of other parts of the world have now been attracted to the Mongolia wilderness to shoot exotic species of big horned sheep, bears and caribou. Local poaching is also a problem. The Altai mountains of Central Asia extend into Western Mongolia where there is a permanent snow field. Mount Chajrchan (4,362') is the highest peak. East of these mountains is a depression containing over 300 pristine lakes. Very few benchmark surveys have been done. Nature reserves are not being protected adequately.

Mongolia participated in UNCED and produced a 40-page report (see Appendix for summary). This report sets out their priorities for environmental conservation. There are 13 parks in areas of outstanding beauty, in addition to conservation areas and wildlife reserves. The largest area is the Gobi Desert which has been designated as a biosphere reserve by UNESCO/MAB. Water is a problem, it being unevenly distributed. A continental watershed divides Mongolia. The biggest rivers flow north or north-east draining into the Arctic or Pacific, whilst smaller rivers in the south drain into lakes or seep into the earth. The Global Environmental Facility (GEF) has invested in the Mongolian Biodiversity Project. Much of the project is devoted to strengthening

Mongolia's institutional capacity to manage fragile ecosystems and develop a National Biodiversity Action Plan.

## **PROBLEMATIQUE AND CURRENT DEVELOPMENT PRIORITIES**

Since 1989, Mongolia has undergone radical changes that have affected every fabric of social, economic and political life. It now is in a very difficult situation. The ruling MPRP is not trusted by large sections of the electorate for its past failures hints at corruption and indecisions. The presidential elections in 1993 completed the institution building process towards a full parliamentary but fragile democracy. Despite tight monetary policy and fiscal restraints, the economy is not stable and economic reforms have brought hardship. Elimination of subsidies followed by price liberalization and currency devaluation resulted in high inflation, 1990-1994. The overall rate in this period has been 13.6 percent. As a result, anti-inflationary measures continue to be a priority in the government's economic policy. Foreign exchange is limited so investors are starved of funds to modernize their plant and equipment. Under IMF guidance, the foreign exchange regime has been reformed but this has been one of the most complex issues in the transitional period because of the country's dependence on external sources of finance. One outcome in 1993 has been to adopt a floating exchange rate. This also reverberated through the market causing social problems. Prices of daily essentials (e.g. rents) jumped dramatically as did electricity and water rates. The good news has been that Mongolia appears to have met all or most of the interim targets set by the IMF to open up its medium-term economic programme, signalling multilateral agencies and the Development Banks to offer loans, credits, grants. For example, ADB provided \$30 million in loans and guarantees and at the Third Donors meeting, Mongolia received pledges totalling \$150-175 million in development assistance [UNDP, 1992]. The top priority is to fill the vacuum left by the loss of Russian assistance and trade, find new markets and encourage self-reliance and re-vitalize the economy and build new socio-economic infrastructure. Reform has been all embracing including the universities and schools, health and environment.

The decline in volume of the main farm outputs indicates that Mongolia's farming sector is very vulnerable to critical factors such as weather and changes in exchange rates, and prospects for increased productivity are poor. One of the main limitations for both the short and long term for agriculture is the implementation and impact of new land legislation. A Land Law is being introduced to determine the various modalities for ownership and land transfers, and legislation is pending to establish the long-term leasing of farmland. The Steppe, however, will remain under State ownership. User fees have been debated for those using the pasture. The problems of economic reform and the poor performance of Mongolian agriculture have given rise to food shortages for the urban population, who under socialism were protected from high prices for basic commodities. A key priority area continues to be food security.

The manufacturing sector suffers from old plant and equipment, lack of management know-how and a shortage of funds. Erratic fuel supplies pose an additional threat. The result is that Mongolia lacks the capital to build up reserves and must rely on a shaky agricultural sector to finance its growth. The main economic indicators paint a grim picture of declining production (see Table 2).

**Table 2**  
**Three Years of Drastic Change**

	1989	1990	1991	Change		1990	1991	1991
			Million tugriks	1989-91		Actual	Planned	Actual
Gross industrial product	7,875.5	7,426.9	5,560.2	-16.1%	Electricity (Mll KWh)	2,814	2,686	2,557
Foreign Trade	1,884.5	1,584.8	856.7	-61.0%	Coal ('000 tons)	7,157	7,968	7,009
Export	721.5	660.8	297.4	-50.8%	Fluorspar ('000 tons)	456	245	251
Import	963.0	924.0	359.3	-62.7%	Copper conc ('000 tons)	354	354	258
Budget Revenue	6,957.2	6,712.1	5,840.3	-16.1%	Molybdenum conc.	4,208	3,983	2,846
Expenditure	7,056.2	6,873.6	8,911.6	+26.3%				
Cash Turnover	581.1	742.7	1,849.0	+218.2%				

Source: State Statistical Office

The service sector, dominated by Banks and insurance companies, fares better but lacks trained staff. A major drawback is the low level of communications which further inhibits Mongolia's attempts to contact each other and the outside world. Negotiations are in progress with other countries to help modernize its telecommunications network with some World Bank and ADB assistance. There is also a low level of information management. Not only are modern methods of information handling lacking, but also there is no culture of sharing information, brought about largely by the dependency relationship on the old Soviet Union for all scientific and technical information. This dependency on external sources of information for all domestic development needs has left a huge gap to be filled in information infrastructure. At present, this situation is a barrier to development since government institutions have no way of knowing who is doing what and where in terms of research, nor do institutions have ready access to foreign scientific literature. Some help has been implemented already by UNESCO and FAO, but much remains to be done in this area.

With regard to social issues, housing is a looming priority since the stock of old Russian-built apartments are falling into decay. There is a growing urban pollution, alcoholism, crime and racketeering. The government is having to review its system of social benefits and welfare to ensure provision is made for those in most need, whilst at the same time having to remain committed to the elimination of subsidies. The result is a growing and pervasive poverty. The following long and short-term priorities indicate the immense tasks ahead.

**SHORT-TERM PRIORITIES****Socio-Economic**

- Better macroeconomic management
- Economic instruments
- Privatization/liberalization policies
- Revision of economic legislation
- Land reform measures
- Data collection
- Energy

**Health and Welfare**

- Development of a national programme of health related issues
- Communicable disease control
- Infant/mother mortality
- Water and sanitation
- Poverty and nutrition
- Data collection

**Environment**

- Compliance procedures
- Green technologies
- Fire control
- Environmental management
- Resource accounting
- Environmental information systems
- Data analysis
- Hazardous waste disposal from leather and wood industries

**Information/Communication Systems and Services**

- National information systems and networks
- Management information systems
- Debt-management support
- Information analysis
- Software development
- Mongolian script processing

**LONG-TERM PRIORITIES****Socio-Economic**

- Competitiveness with sustainability
- Policies for financial stability
- Structural reform
- Regional integration
- Food security

**Health and Welfare**

- Policy formulation
- Health reform
- Rural community health management

**Environment**

- Desertification policy
- Pollution strategies
- Decision-support systems
- Grasslands management
- Water resource policy
- Green Plan
- Establishment of ecological economics curricula at universities

**Information-Communication Systems and Services**

- Training of trainers
- Computer-based communications networks
- Advanced materials and software engineering technologies
- Scientific numerical data handling
- Remote sensing

Some of the more serious effects of the present situation are to be found in the deteriorating health of the local population, and whilst it must be stressed overall health standards are generally satisfactory, there are critical areas that need attention - mother and child health, growing evidence of malnutrition, increased infant and mother mortality rates, and a higher incidence of communicable diseases. AIDS, not previously a problem, recently gained entry into the country. Donor assistance and research support is urgently needed to combat some of these problems. Preventative health is stressed by the government.

## KEY INSTITUTIONS

Mongolia has adopted the Soviet style Academies of Science to oversee all research in the country. It was founded in 1921, first as the Committee of Sciences, then in 1961 it became the Mongolian Academy of Sciences. It consists of departments and key research institutes. The departments are: Agricultural Sciences, Chemistry and Biology, Geography and Geology, Medicine, Physics and Mathematics, the Academy of Sociology and the Academy of Technology. Beneath these are the main research institutes. Of interest to IDRC will be:

The Centre for Informatics	Head - Dr. M. Gandzorig
The Institute of Biotechnology	Director - T. Puntsag
The Institute of Water Problems	Director - M. Gantomor
Institute of Economics	Director - not known
Centre for Science & Information	Director - P. Nerguy
The Research & Production Corporation on Renewable Energy	Director - T. Tsevegmid
Forestry & Wood Processing Institute	Director - S. Saynbayar
Institute of Hygiene, Epidemiology & Microbiology	Director - J. Kupul
Research on Mother & Child Health	Director - E. Luvsandagva
Research Institute of Animal Husbandry	Director - B. Minjigdovj
Veterinary Research Institute	Director - R. Sodnomdarjaa
Plant & Crop Research Institute	Director - G. Davaadorj
Research Institute of Pastoral Animal Husbandry for the Gobi Region	Director - DD. Namsray
Research Institute of Agricultural Engineering	Director - J. Tumen
Agricultural Economics Research Institute	Director - D. Dorligsuren
Eastern Mongolian Agricultural Research Institute	Director - A. Huchit
State Plant Protection Service	Director - D. Tsedev
Agricultural Research Institute of the Altai Mts	Director - T. Sonompel
Bee Research Institute	Director - A. Selenge
Academy of State Social Research	Director - not known

## **Ministry of Agriculture**

The mandate of the Ministry of Agriculture is to halt the decline of agricultural production, improve food security and bolster the supply of agricultural raw materials for industry. The following strategies are important:

- Transfer of land ownership to farmers and land leasing to expatriates
- Privatization of State Farms and Collectives
- Improvement of agricultural infrastructure
- Strengthening of farm management and farming systems
- Improvement of veterinary services and pest control
- Improvement of water resources and irrigation management
- Increased crop and fodder production by better cultivation techniques and harvesting methods
- Introduction of improved post-harvest technologies.

It is important to note that the Privatization programme also extends to the Academic sector and at the present time the Academy and its various component research institutes are undergoing structural changes. Some key institutes will remain under the Academy whilst others will be privatized.

## **National Agricultural University**

The Agricultural Institutes have been re-grouped under the Council of Agricultural Sciences and have been placed under the National Agricultural University.<sup>5</sup> The provisional reorganization is set out in Figure 1 below.

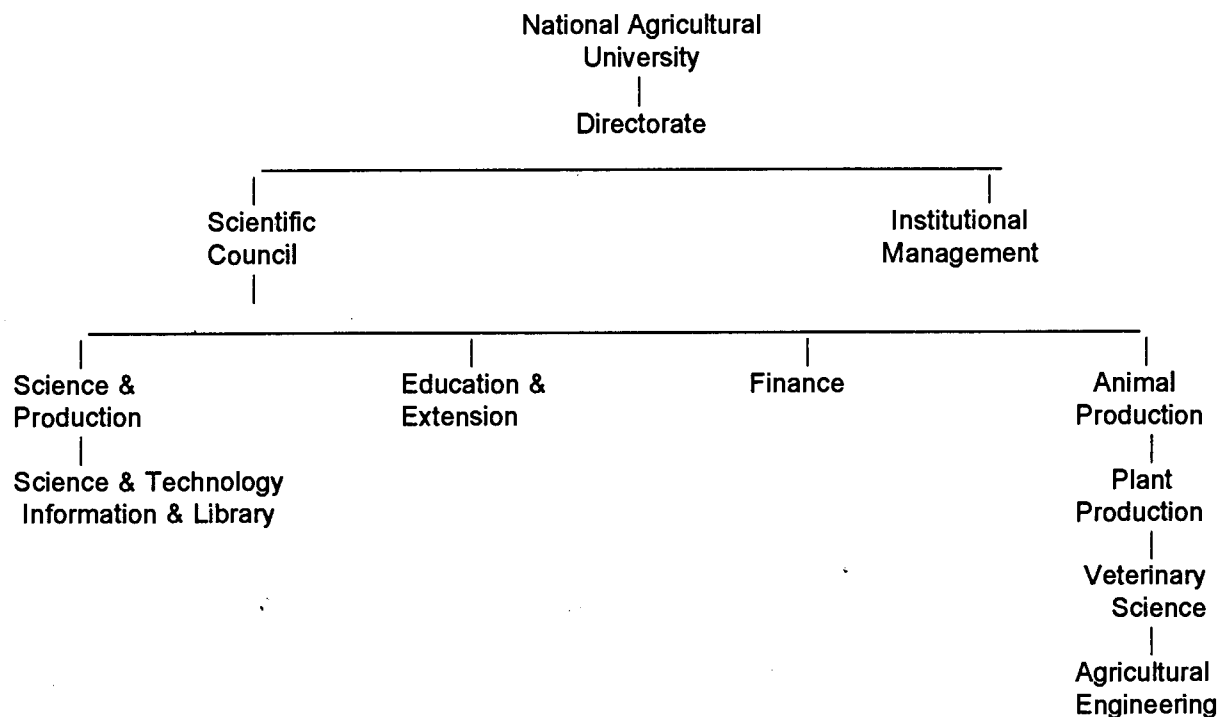
For all agricultural research activities, the National Agricultural University is a key institution. The President of the University welcomes foreign assistance. There is great scope for collaborative projects joining Canadian and indigenous expertise. The university has had some prior contact with the University of Saskatchewan. In 1992, there was an exchange visit, but little came of it largely because at that time Mongolia was not on External Affairs' list of countries for assistance. The President has made efforts to secure Canadian assistance in other fields but has not been successful. The Council of Agricultural Sciences, which now has assimilated major agricultural research facilities in Mongolia, has downsized considerably. The President of the National Agricultural University and Director of the Council of Agricultural Sciences is Professor Tumurjav.

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<sup>5</sup> At the time of this consultant's last visit (Sept/Oct 1993), the Council was undergoing a strategic review. At that time, a proposed arrangement was to make the National Agricultural University fully responsible for all agricultural research in Mongolia and to focus on R&D, led by "production and market realities". This meant conducting applied research according to changes in the free market and needs of the agricultural industry.

**Figure 1**

**New Agricultural Research Management Structure  
(Mongolia)**



The Council of Agricultural Sciences works closely with the Ministry of Agriculture. The Minister of Agriculture is Mr. Uuld who also has key research institutes under his wing. For instance, there is an Institute of Agricultural Economics at the National Agricultural University. The Director is Dr. A. Enkhamgalan. He works closely with Professor Dorligsumen at the Council of Agricultural Sciences. Similarly, there is the State Veterinary Institute under the Ministry of Agriculture and the Veterinary Research Institute under the Council of Sciences. External assistance and research funding in the agricultural sector are handled by the Department of Economic and International Cooperation at the Ministry of Food and Agriculture. Mr. Bayartsogt is the Head and speaks excellent English.

## **The Ministry of Health**

The Ministry of Health has the mandate for improving Public Health delivery of services and policy formulation on matters of hygiene, sanitation and epidemiology. The Minister is Dr. P. Nyamdavaa. This ministry works closely with the Academy of Sciences and its relevant institutes: e.g. Academy of Medicine (Secretary: L. Lhagva); The Institute of Hygiene, Epidemiology and Microbiology (Director: Dr. J. Kupul); the Research Centre on Mother and Child Health (Director: Dr. E. Luvsandagva); and the Medical Research Institute (Director: Dr. Y. Bodhua).

At the Ministry of Health, there is a Directorate of Public Health (Director: Ts. Sodnompil), and a Nutrition Centre (Head: Dr. M. Oyunibileg). There is also of importance the State Inspectorate for Hygiene and Epidemiology (SIHE) (Director: Dr. T. Tuggeegyn). Dr. G. Surkenkhand, the chief epidemiologist here, is a good English speaker.

Private and public sector enterprises lack basic information about sanitation and pollution controls, as well as any understanding of their obligations under existing Mongolian laws. This has been particularly evident with regard to food laws. Many standards adopted in Mongolia are those of the former Soviet Union and not international, such as CODEX standards, guidelines, recommendations and codes of practice for food.

A recent FAO study of the food system recommended management training, including emphasis on the importance of food controls, development of a national strategy, resource management and priority setting, development of compliance policies, programme implementation (i.e. how to put a plan into action), programme evaluations, the importance of effective risk communication and CODEX alimentarius and food control. It should be noted that most of these suggestions will, of course, apply to sectors other than food. There is a need for a national programme on health-related issues; specifically, monitoring programmes for bacteriological contamination, pesticide residues, communicable diseases, vaccination programmes, etc. Laboratories are badly equipped and training of technicians is poor. In designing national health programmes, attention needs to be paid to laboratories and technical personnel. There is a need for a national health database so that health-related issues can be prioritized.

## **Nutrition Research Centre**

The Ministry of Health has a Nutrition Research Centre, established in 1992 - Director: Mrs. M. Oyunibileg. The focus of this centre is to study the dietary patterns and nutrition of children. The centre is also concerned with education and product development. It has a staff of 33, made up of 12 researchers and 21 doctors, biochemists and technicians. Research focusses on: mother and child, traditional foods and treatment of clinical conditions and establishing standards. There are serious micronutrient deficiencies in Mongolia because of the soils and limited imports of foodstuffs, and low consumption of fruit and vegetables. The centre is running a special project by a local



consultant which is looking at nutrition and population policy and involves food and nutrition status of the population as a whole, identification of micronutrient deficiencies, and the development of a strategy to correct these deficiencies. The centre would appreciate assistance in reaching some of its goals, as well as the means to participate in international networks.

### **The Ministry of Nature and the Environment**

The Minister is Mr. Batjargal. There is an International Cooperation Department (Director General: Mr. Adyasunen) but policy level decision-making pertaining to development assistance generally is dealt with through the office of his deputy, Mr. Bardach. There is a Mongolian Biodiversity Project; the National Project Manager is Mr. Batbold.

So far, this Ministry has been able to attract a large portion of funding largely because of the investment by the GEF in the Biodiversity Project. Such big ticket items tend to attract other donors who are able to work with smaller projects that do not have the global linkages. Much of the work on desertification and the advance of the Gobi Desert is carried out in conjunction with other institutes of the Academy, and specialist institutes such as the Agricultural Research Institute of the Altai Mountains.

### **Ministry of Trade and Industry**

The main role of the Ministry is to support the development of foreign trade and investment and, at the same time, facilitate growth of private firms, particularly SMEs.

### **Ministry of Finance**

The mandate of this Ministry is preparation of the annual budget, audit of state expenditures, administration of debt and relations with foreign institutions. It has included policy alternatives as a function of reform to the economy.

### **Ministry of Roads, Transport and Communications**

Apart from energy, of interest will be the Minister's role in defining such policies as telecommunications, E-Mail, satellite communications policy for data transmission.

### **National Development Board**

Overall responsibility for national development policy setting lies with the National Development Board (NDB). It reports directly to the Prime Minister and consists of the following departments: Technology and Investment Policy; Economic Cooperation and Macroeconomic Policy; and Administration. The main function of the NDB is to develop strategies and plans for the national economy, set priorities and coordinate the

implementation of both national and international cooperative projects. It also is the main coordinating body for all foreign assistance from donors and international organizations.

### **State University**

This university is the largest in Mongolia and is situated close to the centre of Ulaan Baatar. The Rector is Professor Dorj. There are about 4,000 students and some 250 professors and researchers. It focusses on the physical sciences and social sciences. It now boasts a business school, a centre for international relations, and an Institute of Economics which has been closely tied in with ongoing research with the Ministry of Industry and the Central Bank. There are not, however, a great deal of published reports. Most documents are ephemeral in nature and are written up in Mongolian. Attempts are being made to remedy this. There is a small information science component of the Faculty of Economics. This is underfunded and underdeveloped and lacks connectedness with other institutions.

### **Non-governmental Organizations (NGOs)**

As can be expected for a former Soviet-style political system, the organization of grass-roots organizations is embryonic, although associations of individuals and interest groups is growing. At present, however, the number and quality of NGOs is small. The most prominent are the Green Party, and the Mongolian Association for the Conservation of Nature and the Environment (MANCE). There is also The Women's Federation.

NGOs are developing several social participatory projects among the most vulnerable groups, but the work is poorly coordinated and lacks a national agenda and Action Plan. The UNDP have considered the problem of growing urban poverty and in 1993 fielded a mission, and in January 1994 supported a *national symposium of national and international NGOs* in Ulaan Baatar. Policy suggestions have been made to the government. No further details are available at this time.

The most important NGO for IDRC to consider will be MANCE which is now developing a strong agenda following UNCED. Finding good local counterparts will be a problem. Support to Mongolian NGOs should consider:

- projects focussed on poverty alleviation;
- grass-roots involvement in environmental issues; and
- assistance for NGOs to network with third-world counterparts.

## **Libraries and Information Centres**

### **Mongolian Centre for Scientific and Technological Information (CSTI)**

This centre comes under the NDB. Its mandate is to develop a national scientific and technical information system to support various sectors of the economy by implementing various information tools and methods for access to information resources. CSTI provides information to users SDI, information analysis and technical information services to industry, translation of key foreign documents, preparation of abstracts of scientific literature, information marketing and also information to all government institutes and departments.

CSTI has links to UNESCO (PGI), the Regional Information Network for South and Central Asia (RINSCA), and the Regional Network for Exchange and Experience in Science and Technology for Asia and the Pacific (ASTINFO). CSTI maintains exchanges and links with several foreign information organizations, libraries and centres. It also has the capability to train local users. It has a number of computers, including a mainframe IBM 370 with IBM main memory and 400 MB disk capacity; several microcomputers; communications equipment; CD-ROM; ETHERNET; X25 packet switching centre. Software includes: OS 7.1/VS, MS-DOS, XENIX. Communication packages: VTAM/C, TCAM, CROSS-TALK, KERMIT. Other applications are: MICRO CDS/ISIS, DBASE IV, DIALOG, SPIRS, STAIRS, WINDOWS, CLIPPER.

The following databases are up and running:

- ATOMINDEX (INIS/IAEA)
- METADEX (UNIDO)
- FOCUS (USA) (S&T Bib)
- TA (domestic)
- OS (domestic)
- Mongolian Theses

The centre is well equipped but is under utilized. Most of the holdings consist of Russian Science and Technology texts and journals, subscriptions for which ceased after 1990. CSTI receives a small number of foreign journals, mostly as exchanges or gifts. These are not available on open shelves. The centre suffers from lack of funding. The Director, Mr. Dorjbal, is very helpful and speaks good English.

### **State Central Library**

This is the equivalent of the National Library elsewhere, though it is more of a public library. It has holdings of 3,000,000, mainly Mongolian, Russian and Tibetan texts and a few other languages. It now collects all Mongolian literature and has been subject to

support from UNESCO, mainly for the installation of CDS/ISIS to handle its library computer applications. The library is poorly endowed and has suffered from years of neglect. The rather impressive building seems expensive to maintain and repair. The tight budget is spread very thinly between the collection and maintenance. The contact here should be Mrs. Ojun, Chief, Department of Automation.

### **University Libraries**

**The Mongolian State University** maintains libraries with special collections in the areas of economics, the natural sciences and social sciences. There are some 350,000 volumes. Current periodicals are, however, very small indeed and services are limited. Staff lack adequate training. Language is a definite limitation. There is scope for establishing some form of socio-economic information system.

**National Agricultural University.** A major problem at the university is the poor facilities and location some short distance from the city centre at Zaisan. There is an irregular bus service which is always overcrowded. This means that it is not convenient for many other institutes to visit and exchange ideas. This is particularly true of the information facility and library. The National Agricultural University is trying to develop a modern information service based on its idea for a national agricultural research network. It was in receipt of a small FAO grant to strengthen its facilities and a UNDP project to bolster research management. Curiously located at the Research Institute for Animal Husbandry, the designated "National Agricultural Information Centre" has attempted to set up the basis for a national agricultural information network and inventories of current research. This is probably because the Director, Mr. A. Shiilegdamba, is one of the few researchers who can speak and read English. The President speaks no English. This is a common situation. Most researchers were trained in Russia or Eastern Europe. It can be a definite hinderance to project development. Discussions can develop into tortuous sessions facilitated by very poor interpreters.

This library has recently absorbed the libraries of the Agricultural Research Institutes of Animal Husbandry and Veterinary Science, Plant Protection and Agricultural Economics, which were small, ineffective departmental libraries. Computer equipment has been donated: 386 IBM Compatible, 4Mb RAM, 80 Mb hard disk; HP Laserjet Printer; Software - MS-DOS, WP5.1, Norton Utilities; SPIRS, CD-ROM. Training has been conducted in AGRIS/CARIS. However, the poor computer skills and lack of English language capability has hindered progress.

With regard to information facilities in Mongolia, there are several limitations:

- Lack of knowledge of English
- Lack of foreign exchange for current journals
- Low level of technical expertise
- Absence of local scientific literature

- Poor communications between institutes, both in Ulaan Baatar and in the aimaks
- Absence of technical support and maintenance of equipment
- No tradition of information sharing among researchers
- Limited access/exposure to modern tools and methods.

## **FOREIGN ASSISTANCE**

### **Development Banks, Multilateral and Bilateral Agencies**

The World Bank, European Investment Bank, the Asian Development Bank, UNDP, FAO, UNIDO, UNICEF and UNESCO have been and continue to be prominent in lending support to Mongolia. The main bilateral sources of funding originate mainly from Japan, by far the highest profile at the present time in Mongolia, followed by Germany, the United States, Denmark, Holland and the United Kingdom. Some project development is significant, whilst contributions from some countries are still quite small. For instance, the United Kingdom has concentrated on language training and has a large VSO contingent. The US also has a large number of Peace Corps personnel in the country. Big ticket items needed by Mongolia at the present time to lift it out of the crisis can only be met by such institutions as the World Bank, i.e. aviation, power generation and transportation. However, if Mongolia is to weather the present storm of economic decline and disruption of social life, it needs the glue that will bind together the knowledge, the people and the institutional capacities needed to permit Mongolia to find its own long-term, practical solutions to development problems. This will require the sort of assistance bilaterals can provide. Canada has so far been absent from the list of donors.

Because of the enormous problems Mongolia faces in economic and social development and the need to react to crises, UNDP, the main UN organization, has facilitated a Donors Meeting each year and reports are available from UNDP in Ulaan Baatar. The last available report was the September 1993 meeting in Tokyo. The World Bank is cooperating with the Mongolian government to plan a medium-term economic strategy which focusses on macroeconomic management. Several loans have been made to bolster fuel supplies and improve transportation. An Economic Rehabilitation Credit of \$35 million was approved in 1991 to obtain essentials for key sectors of the economy and a Technical Assistance Credit of \$5 million has been assigned for structural reform measures. Much of this has already been expended and a new round of financial support is under consideration. For instance, a further \$30 million to go towards balance of payments support in the transitional period to a full market economy. This year, the World Bank will secure credits for infrastructure and transport, and later this year it is understood that the World Bank will also extend an Agricultural Development Credit to Mongolia.

Most active in the region has been the ADB. Between 1993 and 1994, loan approvals totalled \$160 million and \$100 million respectively, and technical assistance to a variety of projects was about \$4.2 million.

UNDP managed a number of projects funded by a variety of external sources, e.g. Japanese untied aid totalling \$15 million was given in 1991-92 for the import of basic commodities. A further \$15 million was planned for 1993 which was to go towards plant and equipment urgently needed for power supplies and district heating. UNDP also manages bilateral projects, e.g. Netherlands Agency for Development (NDA) have provided \$1.1 million of untied aid for medical facilities. It also manages tied aid, usually for trade with the United Kingdom and the USA.

The agricultural sector is the major recipient of bilateral assistance and there are numerous projects. For example, DANIDA has supported livestock surveys; the UK has supported the Institute of Development Studies, also active in the livestock sector, with its Policy Alternatives for Livestock Development (PALD) project. AIDAB, Australia, has undertaken a programme of agricultural management development for newly privatized farms.

A new German protocol was signed in 1993 which will focus Germany's development assistance in the following areas:

- economic reform and private sector development (especially SMEs where an advisor has been placed in the Ministry of Trade & Industry in Ulaan Baatar)
- environmental protection
- training and education
- energy

USAID have funded a team from the Harvard Institute of International Development to advise on macroeconomic policy at the NDB and a University of Maryland survey of privatized enterprises listed on the new Stock Exchange.

A multi-funded donor programme is underway for management development, funded by DANIDA, SIDA, NDA and EC and UNDP.

FAO has been active but so far has not had a high profile. It has the following technical cooperation projects: Agricultural Management; Agricultural Statistics; Food Quality Control; Weed and Rodent Control; and Strengthening the Council of Agricultural Sciences. WHO also has a presence and has supported health and nutrition reviews.

Other international organizations have supported a few initiatives. For example, ILO household consumption surveys to improve the statistical base for measuring poverty. UNESCO has assisted the State Central Library, mainly through installation and training in MICRO CDS/ISIS. UNICEF was in the process of setting up an office in Ulaan Baatar last September and is increasing its project role.

There are now a number of environmental development assistance initiatives. Mongolia was active at UNCED and produced a detailed Mongolia Report. Mentioned above is the GEF investment in the Mongolian Biodiversity Project which aims to strengthen Mongolia's indigenous capacity and institutions to manage biodiversity issues. The main components include: land use; conservation areas; re-introduction of Przewalski's Horse; training and education; environmental legislation; eco-tourism for income generation. A national Biodiversity Action Plan will be developed.

The McArthur Foundation has undertaken to support a survey of sustainable development by comparative analysis of environmental, cultural and administrative conditions, from which a database and GIS system will be built up. The ADB is supporting the strengthening of environmental assessment procedures in Mongolia. USAID is supporting a land degradation project and the Agenda 21 Draft Action Plan. It is important to note that *UNDP is assisting the Ministry of the Environment in compiling a comprehensive list of all environmental activities in Mongolia*. It is expected to be available shortly for all donor agencies.

Finally, the European Union (EU) held the first Joint Economic Meeting in June 1993. Although aimed at trade between the two countries, the meeting confirms EU's intention to provide development assistance through technical support for agriculture, rural development, the environment and management training. Projects under consideration at that time included: Support for Market Research; Management Training; Agricultural Commodity Exchange; Rural Health; National Parks Management; National Veterinary Service Network; Solar Energy Project. The aggregate amount of aid committed to Mongolia by the EU and its member states amounts to some \$65 million, mostly in the form of grants.

### **Emergency Relief Operations**

Severe weather conditions each winter, but particularly in the winter of 1992 and the first quarter of 1993, hit agriculture hard and reduced food supplies. The World Food Programme provided 4,000 tons of flour to vulnerable communities and EU directed emergency relief towards 290,000 mothers and children, most affected by food shortages, at a cost of \$1.6 million. The Netherlands provided DFL 750,000 (\$425,000) channelled through the World Food Programme (see Table 3)

**Table 3**  
**International Contributions/Assistance to**  
**Snowfall Affected Provinces in Mongolia**

	Type	Amount (US\$)	Provision of Assistance
USA	cash	25,000	Food
Japan	cash	170, 250	Food
China	cash/kind	50,000	Food
United Kingdom	cash	50,000	Food/Relief Goods
Denmark	cash	40,000	- " -
Germany	cash	30,000	- " -
India	kind	34,800*	Drugs/Medical Supplies
France	cash	40,000	-
Austria	kind	9,000* 25,000	Drugs Food/Relief Goods
Vietnam	kind	200,000	Food Aid
Hungary	cash	23,000	-
Republic of Korea	cash/kind	47,000	Relief Goods
Israel	kind	-	Food/Drugs
UNDHA**	cash	25,000	Food
UNDP	cash	50,000	Transportation/Fuel
WHO	kind	67,000	Emergency kits/Spares
UNICEF	cash	75,000	Clothes/Relief Goods
Red Cross (Korea)	cash	10,000	-
Red Cross (China)	cash	10,000	-
JCS International	cash	130,000	Purchase of Livestock
TOTAL		1,161,050	

\* At current UN prevailing rate.

\*\* UN Dept. of Humanitarian Affairs.

Source: UNDP, Mongolia



### **Database on Donor Assistance**

The UNDP office in Ulaan Baatar has set up a database to collect, store and disseminate information on external assistance projects from multilateral and bilateral sources as a monitoring tool. The data is classified according to subject, sector, donor and project details. A prototype project made it available for the last Donors Meeting in Tokyo. Ultimately, it is planned to transfer responsibility to the NDB as a tool for management and coordination of development assistance.

### **Private Sector Initiatives**

Apart from foreign aid agencies, private sector initiatives are growing in importance and are an important source of expertise for the Mongolian economy. The Mongolian government favours joint ventures at all levels but especially among SMEs which it sees as the springboard for prosperity. There are entry points at all levels because Mongolia lacks a variety of services. The lead agency is the Mongolian Chamber of Commerce and Industry. Also of interest is the Department of International Organizations and Western Countries which comes under the Ministry of Trade and Industry. There is a "Canada desk". The position is currently held by Mrs. Tungalag. The Department is located in the same building as the Chamber of Commerce and Industry and the two offices work closely.

There are no Canadian initiatives<sup>6</sup> apart from one in Management and another in Telecommunications funded by the private sector. Foreign companies involved include: Coopers Lybrand; Peat Marwick; but with some major petrochemical and mining interests in the industrial sector assuming an increasingly higher profile. These now include a return of some Russian companies, especially in the forestry and mining area.

### **RESEARCH AND ADMINISTRATIVE CAPACITY OF LOCAL INSTITUTIONS**

The general research and administrative capacity of most institutions is weak but improving. Generally speaking, the Academies are underfunded whilst various institutes in the Minister's office are satisfactory. This is reflected not only in the level of education and training of professional staff but also in equipment and logistics generally. For instance, most state laboratories are under-equipped; reference materials are old and in short supply. There is little contact between central laboratories and research facilities in the capital and smaller facilities in the different aimaks. There seems to be a lot of duplication of effort and scarce resources are not efficiently used. Foreign assistance is a relatively new activity in Mongolia and most institutions are not familiar with the management requirements of often large and demanding projects with a complex set of objectives.

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<sup>6</sup>At the time of this consultant's last visit, there were two Canadian consultants, but there are no specific project details available.

Traditionally, research programmes have been developed by a "top-down" approach. National Five-Year Plans were set down and budgets were allocated in accordance with a pre-determined set of priorities by Committee. Research managers at the institute level were then informed of the amount they could spend and they had to work within these envelopes. This approach is increasingly being changed to a "bottom-up" approach where individual scientists, supposedly in touch with market demands and with an assumed perception of the research needed, work out programmes and present them for funding. This approach is identified with an informal attitude to definition and management of research and is suited to a situation found in many countries where there is no formal system for research policy at the national level. In a period of transition, Mongolian researchers find themselves caught in the middle. Either way, they lose out, the result being budgetary indecision, under-funding of programmes, lay-offs and non-payment of salaries.<sup>7</sup>

The main elements of good research management are missing and need close attention, viz:

- Description of research in manageable units
- Apportioning of costs
- Inventories of research and research workers
- Progress reports
- Data collection and analysis
- Regular revision so that research is current
- Continuity
- Means of verification
- Estimate of benefits or other reasons for doing the research
- Rresearch-type codification ( i.e. into fundamental, strategic, applied, developmental or support).

National development priorities have not been effectively integrated into the research agenda of institutions in a manner likely to show demonstrable results. Capacities to effectively deal with these development issues in Mongolia will continue to remain limited unless decision-making is grounded in an understanding of both the actual and potential effects of policies on socio-economic behaviour. Crucial to this is information needed for decision-making. Given the scale and complexity of Mongolia's problems and the modest resources, financial assistance will be important in the following areas:

- Scientific information systems
- Management Information Systems
- Analytical Frameworks and Techniques

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<sup>7</sup>During this consultant's last visit, practically no work was being done at the various agricultural institutes; few staff were evident. The reason given was that no salaries had been paid for six months so staff had left. Those that remained had no support. Professional salaries are very low.

- Impact Assessments
- Increased numbers and quality of researchers
- Collaborative Research
- Development and training of indigenous capacity to perform on a sustainable basis
- Development of research networks.

Poor research capacity in Mongolia is also partly due to inadequate managerial autonomy and a bureaucratic tradition, and the slowness of this bureaucracy to respond to economic reforms, lingering political and other vested interests which are against reform, as well as unrealistic timeframes needed to improve research and administrative capacity. To be successful in capacity building, there is a need for a high level of commitment and mutual interest on the part of the donor and recipient. In Mongolia, this is particularly relevant at this juncture because Mongolian institutions have no track record of international development assistance. Development assistance at this time will be most effective where it concentrates on high priority projects that match recipient and donor interests and have components that will strengthen technical, managerial or administrative systems. Growth of the private sector also will have the capacity to syphon off better trained staffs because of low pay in the public sector institutions.

Few Mongolians have been educated outside the country. Most foreign experience and academic qualifications were obtained in Russia and Eastern Europe. There are a few that have been educated in the USA and Europe but the numbers are increasing. A limiting factor also is lack of English language capability. This is changing and a lot of time is spent on learning English. Project officers engaged in development should bear this in mind and, if need be, include English language training as a line item in budgets.<sup>8</sup> At the same time, the number and complexity of foreign assistance projects is growing which taxes existing capacity to manage projects to the limits.

## **OPPORTUNITIES FOR IDRC SUPPORT**

Over the years, the IDRC has worked with a variety of scientific and technical institutions in developing countries and has fostered collaborative effort between them and Canadian counterparts. Mongolia is one country it has not been possible for IDRC to help in the past. There are now compelling reasons for IDRC to extend assistance to Mongolia. Firstly, there are striking environmental similarities between Canada and Mongolia, both in climate and physical geography as well as Canadian research interests. Canada is a country that has been able to extend the limits of agricultural production into northern latitudes far further than any other country. It has extensive expertise in northern environmental research issues. Secondly, Canada is seen by Mongolians to be a country

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<sup>8</sup>The FAO project this consultant was advising had to amend the budget for language training in order to ensure the goals and objectives could realistically be met.

of "clean" technologies, "pure" water and well-managed research. There has been some contact between the two countries but up until the present time with few tangible results.

The IDRC is particularly well placed at present to assist Mongolia. Many of the priorities fit into IDRC's core themes and programmes. There is a great deal of multilateral and bilateral donor activity in Mongolia but few of the agencies seem to follow through. A key element of IDRC's strategy is capacity building and knowledge brokering - two basic needs of Mongolia at this time. The IDRC is a unique institution in international development, having built up over the years a reputation for support to research in developing countries that best fits local needs in full intellectual partnership, an early involvement with environmental issues (The Bruntland Commission), and IDRC as an Agenda 21 organization. It also has some unique divisions dealing with development issues, e.g. Information Sciences, as well as specialized research partnerships, e.g. micronutrients.

There are pitfalls and these should be apparent at the outset. A development assistance agency making funds available for activities in developing countries has to be cautious in its approach and must exercise care if it is to succeed in promoting self-reliance in accordance with the plans and priorities of countries themselves. Once money is committed it is to be expected skilled staff will be recruited and they will not be later appropriated to other tasks; that the results of the research will be made available to all who have a need for it; that funds will not pay for any unnecessary duplication; and that there is a good chance of local resources carrying on after donor support ends.

Mongolia has had little contact with foreign assistance programmes and local expectations may not match donor policies in this regard. As indicated in the text of this report, research and administrative capacity is weak. The effectiveness of institutional arrangements is likely to be restricted as a result of limited counterpart reserves (both financial and human) as well as the marginal influence of decision-makers. The prevalence of narrow sectoral preferences to planning and development further reduces effectiveness of any local institutions. Therefore, a solution might be to support more interdisciplinary skills and cross-sectoral collaboration.

It is also unrealistic to assume IDRC can immediately fill a major gap in Mongolia's external assistance agenda. The problem is simply too diverse. Mongolia is capable of consuming large amounts of aid. This and IDRC's limited funds calls for selectivity. With this in mind, it is possible to find a few opportunities where the IDRC will have a comparative advantage and other donors are not active. The broad area of health, sanitation, desertification and forestry, mountain development and information systems are obvious areas to focus.

## **Possible Entry Points**

**Health.** A key area of research in Mongolia at present is *health policy*, especially *environmental health in urban areas*. The health system is undergoing traumatic shifts in focus. Questions of *effectiveness*, *affordability* and *sustainability* are areas for research, as well as communicable diseases associated with a deteriorating urban environment. Of particular significance is the need to promote assistance to help vulnerable groups.

**Nutrition.** Food supply in Mongolia is vulnerable to climatic changes and soil deficiencies. The erratic supply situation creates periodic shortages. Lack of yeast has closed bakeries. Milk is in short supply and so is milk powder. Peace Corps and VSO working in the aimaks report that the amount of staples (flour, sugar, vegetables and fruit) are almost non-existent. There are micronutrient deficiencies. Data collection is weak.

## **Sustainable Agriculture and Rural Development**

The agricultural sector receives the greatest amount of foreign assistance. Nevertheless, possible entry points for the IDRC should be in *agroforestry* where forage, firewood and commercial exploitation of forests could benefit from Canadian expertise. Of particular interest in the Canadian context is *forest and steppe fires* which are permanent problems in Mongolia. No early warning system exists. Preventative burning and fire control mechanisms are sought. Some time ago the Information Sciences and Systems Division supported a Canadian bibliography on Fire. This sort of small project would be useful in the present context.

Another area is *food security without degradation* and in the light of changes from collective to private farming - *common property resource management*. A foremost issue is the question of *desertification*, especially the spread of the frontiers of the Gobi Desert. It is estimated that the southern edge of the Gobi is moving northward at the rate of 500 m annually as a result of diminishing aquifers and depletion of surface water [UNCED, *Nations of the Earth - Mongolia*, 1991]. Research is needed to ascertain the causes and effects between land use, climate, declining water tables and community participation. There are opportunities for *protection of biodiversity*, where small well-focussed projects that involve education and community participation will be useful, as well as support for data collection activities such as *germ plasm banks*. In the area of pollution controls, waste management and environmental values, possible entry points are on research into various *economic instruments*, *social resource accounting systems* and especially the support to teaching of *ecological economics* and *environmental management* at the university level.

### **Information Sciences and Systems**

The field is wide open for improvements to Mongolia's information-communications systems with very little attention at present being paid by other foreign assistance agencies. Possible entry points are: assistance to *national information systems* and linkages with regional information systems; *information and telecommunications policies*; *Information for management of debt*; *Geographical information systems*; *Environmental information systems*, and *Technical Information Services (TIS)*. Of particular interest to Mongolia at this time will be IDRC's experience with TECHNUNET (Asia). In the area of software development and applications, Mongolia has need for assistance to adopt various *software for improvement to decision-making*, as well as training in *automated management information systems*. Very little standardization and compatibility has been noted and there is a real need to provide assistance to design systems that will enable various departments to share available information about ongoing research. Another particular priority is the need for a *Mongolian script processor*. Training in information management at all levels is also needed.

### **Social Sciences**

Entry points in the field of *macroeconomic management* are *balance of payments management*, and *competitiveness under privatization*, because there is little indigenous research capacity in these fields. Various issues regarding *poverty* require serious attention, especially in the urban environment where existing social resource systems are being stretched to the limit. In the light of ongoing economic reform, Mongolia will need research support for *alternative models for provision of certain social services*, analysis of innovations to Mongolia such as imposition of user fees in certain instances. Finally, there is a great need for study of mechanisms to link researchers and policy-makers more effectively for improved and informed policy decisions.

### **CONCLUSIONS**

Mongolia has emerged from years of isolation and dependency. The overall government strategy is to curtail the current slide of the economy, increase self-reliance and competitiveness, whilst setting the stage for sustainable development. The expectations for modest economic growth with improved environmental quality are not unrealistic provided Mongolia can steer a difficult course and avoid some of the political turmoil that has occurred in other parts of Central Asia and Russia. A key to success in the medium term will be foreign assistance. Canada's interest and involvement in Mongolia's development process has been limited and funding at present is severely lacking. The IDRC is, however, well placed to offer assistance at this time to help Mongolia use its research capacity more effectively and, at the same time, develop partnerships between Mongolian, Canadian and other Asian partners in collaboration of research priorities. This report has attempted to highlight some of the issues and priorities and suggest ways the IDRC might best help.

Mongolia has experienced a traumatic upheaval from its authoritarian past and faces an uncertain future. If it maintains the present course of reform and democratization, the outlook is promising. Numerous problems remain. The type and level of assistance it receives will be crucial to the process. Like Ghengiz Khan earlier, present-day Mongolians are willing to learn from others and are prepared to innovate. IDRC's role as a knowledge broker will be particularly relevant at this time.

## APPENDICES





## APPENDIX 1

### DIRECTORY

(with Annotated List of Key Institutions for Contacts)

Note: There may be variations in the Latinization of Mongolian names. This is because until 1990 everything was written in Russian. Mongolian is now officially used (e.g. Ulan Bator/Ulaan Baatar; The Minister of Agriculture - Mr. Uuld or Mr. Oold).

President	:	Mr. P. Ochirbat	
Prime Minister	:	Mr. P. Jasray	
Deputy Prime Minister	:	Mr. L. Enebish	
Minister of Construction & Town Planning	:	Mr. T. Damisan	
Minister of Culture	:	Mr. N. Enhbayar	
Minister of Defence	:	Lt.Gen. S. Jadambaa	
Minister of Demography & Labour	:	Mr. E. Gombojov	
Minister of Environment:		Mr. D. Batjargal	Tel: 370 943
International Cooperation Dept			
Director General	:	Mr. Adhyasuren	Tel: 329 619
International Projects			
Director General	:	Mr. Bardach	Tel: 326 617
Mongolia Biodiversity Project			
National Project Manager	:	Mrs. Batbold	Tel: 326 617
Minister of Finance	:	Mr. D. Davaasambuu	
International Relations			
Director General	:	Mr. D. Hulan	Tel: 20247 Tlx: 7224

Minister of Food & Agriculture Enkh Taivan Street 16, Ulaan Baatar Dept of Economic Relations & Cooperation	:	Mr. T. Uuld  Mr. Dorligsuren or Mr. Bayartsogt (good English). Responsible for external assistance issues.	
Minister of Foreign Relations	:	Mr. T. Gombosuren	
Minister of Fuel and Power	:	Mr. B. Jigjid	
Minister of Geology & Mineral Resources	:	Mr. D. Tsogbaatar	
Minister of Health Karl Marx St. 3 Sukhbaatar Duvreg	:	Mr. P. Nyamdavaa 032	Tel: 320 916/322
Minister of Law	:	Mr. P. Luvsanjav	
Minister of Roads, Transport & Communications	:	Mr. R. Sandalhan	
Minister of Trade & Industry International Relations Director General	:	Mr. T. Tsogt  Mr. D. Ganbold	  Tel: 32491
Minister of Science & Education	:	Mr. N. Uldziyhutag	
National Development Board 210 646 Negdsen Undestnii St Ulaan Baatar 46 Chairman	:	Mr. C. Ulaan	Fax: 976-1-31011 Tlx: 236 CNTI MH Tel: 328193; 77368
Dept of Economic Cooperation (Govt. counterpart agency for external assistance)	:	Mr. Ganbold	
State Statistical Office	:	Mr. B. Tsendayuush	
Central Bank There are a number of good English- speaking reform economists at the Bank. For instance, Mr. N. Yanzan and Mr. B. Enh-huyag, Senior Officers in the International Department, who are able to enlighten one on the current situation and economic reform, needs and priorities.			Tel: 22173 Tlx: 241

State Commission for Privatization	:	Mr. Y. Gerelchuluun	Tel: 29470 Tlx: 79334
State Institute of Administration and Management Development			
Chairman	:	Mr. D. Tserendorj	Tel: 27745
(Some of the best economists and managers are located here.)			
Academy of Sciences			Tel: 25163
Suhbaatar Sq 3, Ulaan Baatar 11			Tlx: 79305
(see text for details of institutes)			
National Agricultural University			
P.O. Box 53			
Zaisan, Ulaan Baatar			
President	:	Professor Tumarjav	Tel: 41377
State National University			
P.O. Box 377, Ulaan Baatar			
Rector	:	Professor D. Dorj	Tel: 20668
Specialized centres of interest: Institute of Economics			
Mongolian Technical University			
P.O. Box 46, Ulaan Baatar			
Rector	:	Dr. C. Avday	Tel: 24121
(Mainly land sciences)			
Special centres of interest:			
Computer Science & Management Institute			
P.O. Box 461672, Ulaan Baatar 46			
Director	:	Mr. D. Badrah	Tel: 53380
School of Information Technology			
P.O. Box 16, Nairamdal, Ulaan Baatar			
Director	:	G. Tsogbadrah	Tel: 54308
Cooperatives			
Association of Consumer Cooperatives			
Chairman of Committee	:	Mr. U. Barsbold	Tel: 329025
Association of Producer Cooperatives			
Chairman	:	Mr. D. Radnaaragchaa	
Association of Individual Herdsmen	:	Mr. T. Ganhuyag	
(An important contact for any discussions concerning pastoral/livestock issues. UNDP can verify.)			



## APPENDIX 2

### LIST OF INTERNATIONALLY FINANCED DEVELOPMENT/RESEARCH PROJECTS RELEVANT TO IDRC PROGRAMMES

- |       |   |  |
|-------|---|--|
| ADB   | : | <ul style="list-style-type: none"><li>◦ Storage, distribution and processing of agricultural products<br/>(\$400,000) 1992 (Ministry of Agriculture)</li><li>◦ Strengthening water users associations<br/>(\$500,000) 1992</li><li>◦ Desertification of soil erosion control<br/>(\$400,000) 1993</li><li>◦ Improved fodder production<br/>(\$410,900) 1992 (Ministry of Agriculture)</li><li>◦ Telecommunications master plan<br/>(\$600,000) 1992</li><li>◦ Environmental assessment and monitoring<br/>(\$250,000) 1992 (Ministry of Environment)</li><li>◦ Use of GIS and remote sensing in environmental<br/>management<br/>(\$500,000) 1992 (Ministry of Environment)</li><li>◦ Afforestation and improved forest management<br/>(\$500,000) 1993-94</li></ul> |
| UNIDO | : | <ul style="list-style-type: none"><li>◦ Industrial extracting of medicinal plants<br/>(\$150,000) 1991</li></ul>   |
| FAO   | : | <ul style="list-style-type: none"><li>◦ Agricultural management<br/>(\$93,000) 1992 (Ministry of Agriculture)</li><li>◦ Agricultural Statistics<br/>(\$83,500) 1992 (Ministry of Agriculture)</li><li>◦ Food Quality Control<br/>(\$185,000) 1992 (Ministry of Health)</li><li>◦ Weed and Rodent Control<br/>(\$152,000) 1992 (Ministry of Agriculture)</li><li>◦ Strengthening the Council of Agricultural Sciences<br/>(\$93,000) 1992 (National Agricultural University)</li></ul>  |

- |            |  |
|------------|--|
| DANIDA     | ◦ Livestock sub-sector survey<br>(\$250,000) 1992 (Ministry of Agriculture)  |
| UK/ODA     | ◦ Policy alternatives for livestock sector (see bibliography for<br>report details; under Swift)   |
| AIDAB      | ◦ Agricultural management development<br>1992  |
| UNDP/GEF   | ◦ Mongolia Biodiversity Project<br>1992  |
| World Bank | ◦ National Environmental Action Plan<br><br>◦ Accountancy development  |
| USAID      | ◦ Survey of privatized households<br><br>◦ Macro-economic policy   |
| EU         | ◦ Strengthening the national veterinary network<br><br>◦ Management training<br><br>◦ Solar energy support<br><br>◦ Market research<br><br>◦ Strengthening the agricultural commodity exchange |

### APPENDIX 3

#### CANADIAN INSTITUTIONS/INDIVIDUALS WITH EXPERTISE RELEVANT TO/LINKAGES WITH MONGOLIA

BROADBENT, K.P.  
Pegasus Farm  
R.R. #2, Almonte, ON KOA 1A0  
Tel: (613) 256-2804  
Fax: (613) 256-6146

Consultant in International Development and Associate, Institute for Environment & Economy, University of Ottawa. Formerly Associate Director, IDRC, 1978-1991. Specialized expertise in China and Inner Asia, most recently for CIDA (China) and FAO (Mongolia) managing a project at the National Agricultural University, Zaisan, Ulaan Baatar.

**Keywords:** Project Management; Research Management; Information Management; Environmental Assessments; Environmental Information Systems; Agricultural Economics; Management Training.

HESKA, Lorne  
University of Manitoba  
Winnipeg, MB  
Tel: (204) 983 5453  
Fax: (204) 983-5547

Supervisor, Health and Environmental Drug Inspection. Consultant to FAO project at Ministry of Health, Ulaan Baatar, 1993.

**Keywords:** Programme Planning; Health Sector; Inspections; Training; Agriculture: Cereals, Forage, Pesticides, Fertilizers, Regulatory Controls.

HUSAK, Glen  
Manitoba Institute of Management

50 Stafford Street  
Winnipeg, MB R3M 2V7  
Tel: (204) 452-6701  
Fax: (204) 453-8691

Director, MIM. Worked with both public and private sector. Considerable experience in Asia, especially with Technonet (Asia) and IDRC and other consultancies.

**Keywords:** Entrepreneurship; Small-scale enterprise development; Privatization; Management Training; Technical Information Services.

LAVOIE, Gervais  
Universite de Montreal  
PQ H1V 1V5

**Keywords:** Anthropology. Economics. Political Economy



MARCHAND, Gus  
(May be contacted through CIDA)

Details obtained by External Affairs is sketchy. Former ADM, Counsellor Science & Technology, Canadian Embassy, Paris. Has recently managed a private sector Telecommunications project in Mongolia.

**Keywords:** Telecommunications; Management; Training

SCHLEPP, Wayne  
University of Toronto  
Centre for Asia and Pacific  
Studies  
tel: (416) 736-7480  
(on sabbatical for current year)  
Home Address:  
562 Lakeshore Road  
Coburg, ON K9A 1S6  
Tel: (905) 372-1567

Dr. Schlepp's area of expertise is in Mongolian language and literature. Of interest to IDRC will be his work on computerization of Mongolian script.

**Keywords:** Language; Linguistics

SMITH, Barry  
Chief, International & Interagency  
Affairs, Food Directorate  
Health & Welfare Canada  
Room 200, HPB Bldg  
Tunney's Pasture  
Ottawa, ON K1A 0L2  
Tel: (613) 957-1748  
Fax: (613) 941-3537

Member of Executive Complement, Health, Canada; Executive Secretary to Cabinet Interdepartmental Committee on Food Regulation since 1986. Consultant for projects in Indonesia, Thailand, Burma, Vietnam, China and Mongolia for FAO, WHO, PAHO. Served as author for FAO abridged version CODEX Alimentarius; also drafted FAO Strategic Plan for CODEX activities.

**Keywords:** Nutrition; Food Control; Infrastructure; Development; Inspections; Management; Training

## APPENDIX 4

### MONGOLIA AT A GLANCE<sup>1</sup>

Area	:	1.6 million sq.km.
Population	:	2,247,068 Rate of growth 2.7% Life expectancy - male 63; female 67
Labour Force	:	965,400
President	:	Mr. Punsalmaagiyn Ochirbat
Prime Minister	:	Mr. P. Jasrai
Government	:	Republic Parliamentary Democracy
Currency	:	Tugrik (T) US \$ = T 160 (Sept 1993)
Economic Indicators:		
Inflation Rate	:	130%
Unemployment Rate	:	12%
GDP	:	\$1.7 billion
		Composition of GDP % (1990):
		Agriculture 20.2
		Industry 33.8
		Construction 5.7
		Transport 11.3
		Communications 1.9
		Trade 9.1
		Other materials 1.4
		Non-material services 16.5
Foreign Debt	:	\$7.1 billion
Per capita income	:	\$100
Current account deficit	:	\$100 million
Retail Price Index (1980=100)	:	1990/102.1 ; 1991/155.9 ; 1993/347.2

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<sup>1</sup>The *Economist Intelligence Unit Monthly and Quarterly Reports* provide the most up-to-date statistics. I am assuming access to them is easy. They should be consulted for any current economic indicators as the situation changes fairly rapidly, especially such things as exchange rates.



## APPENDIX 5

### GENERAL INFORMATION

**UNDP Office** : P.O. Box 49/207 7, Erhuu Street, Sukhebaatar region, Ulaan Baatar

Cable : UNDEVPR, ULAAN BAATAR  
Tlx : 0800 79225 MH  
Tel : Resident Representative - 21539

Office Hours : 0900-1730 (lunch 1300-1400)  
Closed Saturdays.

NB: Government working hours are 9000-1800; Saturdays  
0900-1500

#### Travel

Only three airlines fly into Ulaan Baatar: Aeroflot from Moscow; Air China (CAAC); and Mongolian Airways (MIAT). Each have two flights a week.

It is not advisable to fly via Moscow airport where frequent delays, thefts and abrupt cancellations are the norm. The only other route is via Beijing. It must be stressed, however, that it is difficult to get confirmation of air tickets for onward or return flights from Beijing. Air China will not honour OK reservations because of overbooking. In addition, MIAT is not a member of IATA so the twice weekly schedule does not show up on airline computer reservation systems. However, MIAT tends to be more reliable than Air China in honouring reservations and a seat will be made available. The best course of action is to get someone in Beijing to confirm all reservations and obtain a computer number from the airline. This is essential for return journeys as communications from Ulaan Baatar are haphazard. On the other hand, Ulaan Baatar may be reached from Beijing by Trans-Siberia Express. The journey takes 30 hours.

#### Visas

Mongolia maintains few Embassies in western countries and the issuing of visas can be a slow and tiresome process. Requirements are an official letter of request from NDB or other institution in Mongolia, two passport photographs, evidence of a return ticket. Allow up to one month. The Mongolian Embassy in Washington can do it in seven days. Be sure to specify an entry *and* exit visa.

#### Internal Travel

Roads in Mongolia are few and far between and subject to weather conditions. Most domestic travel is by air to important locations, but fuel shortages make domestic flights risky if one is on a tight schedule. Overland travel is possible by 4-wheel drive vehicle and is quite an experience, but requires time because distances between settlements are large and lodgings and food are not available except for herdsman's hospitality.

### **Taxis**

Fuel shortages and lack of spare parts means that taxis are in short supply and difficult to obtain. It is important, therefore, to arrange transportation with the sponsoring organization ahead of one's visit. Otherwise, one can get marooned at the airport. Taxis, if available, can often be spotted in front of the Ulaan Baatar or Bayangol Hotels. A typical fare is T 10. Don't be surprised if you stop to pick someone else up on the way.

### **Private Vehicles**

Russian-made 4-wheel drive vehicles perform best under local conditions. For project development, the purchase of such vehicles is recommended. They cost only about \$5,000 and are very durable. Most projects cannot function without a vehicle, especially any contemplated outside of the capital.

### **Rate of Exchange**

A floating rate has been adopted. The last rate (Sept/Oct 1993) was \$US1 = T 5.48. It is non-convertible. But dollars can be exchanged freely and are accepted anywhere. It is best not to change too many dollars into Tugriks because sometimes the exchange office at the airport is closed. The hotels have restaurants that accept either dollars or Tugriks. Hotel bills can be settled by credit card or US dollars.

### **Hotels**

There are presently two hotels: The Ulaan Baatar Hotel and Bayangol Hotel. The best one is the Bayangol. Under construction is the Ghengiz Khan Hotel. Holiday Inn has a contract to run it. Work had stopped temporarily last year because of shortage of funds. Food and lodging are still reasonable by Asian standards. Tipping is not customary though expressions of thanks are welcome.

### **Credit Cards**

Most major credit cards are accepted.

### **Restaurants**

Limited. Stick with the Bayangol.

### **Climate**

Weather can be a problem because of the altitude, mountain ranges and changing air pressure. Summers (June-September) are short. Spring can be changeable as can autumn. Light clothes are sufficient with sweaters or light overcoat in April-June and Sept-October..

### **Dress**

Government offices tend to be fairly formal. Coat and tie mostly worn.

### **Public Holidays**

January 1 (Lunar Year); March 8 (Women's Day); July 10-12 (National Day); November 26 (Constitution Day)

### **Recreation**

Mongolia is a nature lovers' paradise with many areas of outstanding natural beauty. However, great distances, poor communications make access all but impossible except to the determined. The official Tourist Agency - Zhullchin - arranges many tours and these are reasonably priced at present. Depending on one's length of stay, an opportunity to visit the Steppe should not be passed up. It is the best way to spend a weekend. Host organizations are usually more than willing to take visitors and need little prompting since it presents an opportunity to obtain extra meat and *airag* (mare's milk) and yoghurt which are in short supply in the capital.

The Mongolian people are well known for their hospitality and it is on the Steppe where one is met with traditional welcomes into the herdsman's *gur* (tent). The inside of the *gur* can be quite elaborate depending on the wealth of each herdsman, and even a modest one will have decorated fittings and furnishings with a surprising degree of comfort. The opportunity to try one of the world's rarest food commodities should not be passed up. *Airag* - fermented mare's milk - is only recently beginning to attract scientific studies on its beneficial qualities. Production methods are also interesting since horses do not have a high lactation rate and, therefore, to obtain large enough quantities for consumption, strings of horses have to be milked up to seven or eight times a day. Vodka, made from distilled whey of cows or yak milk, is another oddity of the Steppe.

### **Other Areas of Interest**

Mongolian Buddhism has close links with Tibet and the Lamaist Gandan Temple in Ulaan Baatar is worth a visit, if not for its ghetto-like location in a poorer part of the city. The government is now rehabilitating religious worship and the temple has a UNESCO grant for renovations. Museums are not very inspiring, but the Natural History Museum is worth a visit for exhibits of some rare domestic species of plants and animals and dinosaur eggs.



## APPENDIX 6

### UNCED NATIONAL COUNTRY REPORT MONGOLIA

Full Title: National Report: Mongolia  
Date of Report: June 1991  
Version: Final  
Original Language: English  
Other Language(s): None  
National Contact Address: State Committee for Environmental  
Control, Ulaanbaatar 11, Mongolia

UNDP Contact Address: UNDP Resident Representative  
P.O. Box 49/207  
Ulaanbaatar, Mongolia  
Tel: 800 26 221  
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#### 1. DRAFTING PROCESS

National Committee: Editors & Authors:

This report was prepared under contract to the United Nations Development Programme, (Project Number INT/91/719) by Environmental Resources Limited, in collaboration with the State Committee for Environmental Control (SCEC), Mongolian People's Republic. The information in this report is based primarily on data and information assembled by the UNCED National Report task force at SCEC during March and April 1991.

Other Ministries and Government Agencies:

No specific mention

NGOs, Grassroots Organizations and Public Involvement:

No specific mention. See penultimate paragraph under section 3 below.

#### 2. PROBLEM AREAS

- "Housing, transport, solid waste management, domestic wastewater management facilities and other infrastructure development have not kept pace with the growing demand created by the rapid economic development, industrialization, urbanization and population growth in Mongolia in recent decades. This has a direct impact on environmental quality and natural resource use";
- Forest resources: "The official average forest loss rate estimate for the past 27 years is 174,000 ha per year". Forest loss is also caused by fires;



- **Waste management:** Inadequate waste management facilities;
- **Water pollution:** Pollution of surface waters due to domestic, industrial wastewater discharges as well as from urban runoff. Diminishing water levels are also current besides the complete drying up of many lakes such as the Ulaan-nuur (175 km<sup>2</sup>) as a result of human activity and/or climatic factors;
- **River pollution:** Untreated sewage and mining activities cause pollution of rivers;
- **Air pollution:** Serious environmental problem resulting from vehicle and industrial emissions and the open burning of refuse;
- **Polluted aquifers:** caused by domestic and industrial wastewater in addition to inadequate solid waste management practices;
- **Natural disasters:** Drought occurs in the spring-summer period approximately 20 years in every one hundred years in the Gobi desert region and half as often in larger parts of the country;
- **Soil erosion and contamination:** Crop cultivation can cause soil erosion. Soil loss can occur too because of climatic conditions;
- **Hazardous wastes:** Hazardous wastes are generated from wood processing, leather and chemical industries;
- **Endangered species:** A number of species are threatened such as the snow leopard, the saiga and the wild camel;
- **Degradation of land resources:** caused by deforestation, fires and animal husbandry practices;
- **Desertification:** "It is estimated that the edge of the southern arid region of Mongolia is moving northward at a rate of 500 metres per year" as a result of diminishing water tables and the depletion of surface water resources;
- **Global warming:** Mongolia's per capita contribution to global warming is relatively high compared to other developing countries;
- **Transboundary atmospheric pollution:** Mongolia is a receptor of atmospheric pollutants from other countries such as the former Soviet Union, and the People's Republic of China because of their neighbouring industrial complexes that can cause acid precipitation.

### 3. PAST AND PRESENT CAPACITY BUILDING INITIATIVES

- "In the spring of 1990, Mongolia underwent a major political and economic transformation moving from a socialist to a democratic form of government and from a centrally planned toward a free marketeconomic system based on private enterprise";
- Measures have been proposed by the government to address the problem of air pollution through the substitution of fuel and heating technology in individual dwellings in addition to the upgrading of thermoelectric power plants;
- Several irrigation schemes have been developed since the 1960's including six systems in the Tui river basin area;
- Oi Mod, a government forestry corporation replants about 9,000 hectares of forest land a year. Moreover, a further 3,000 ha are replanted each year by other organizations as well as by private individuals;
- Erosion prevention measures such as strip cropping and contour plowing have been taken though they are not entirely comprehensive;
- Mongolia has set up thirteen parks in addition to wildlife reserves, the largest of which is the 5.3 million hectare Great Gobi National Park Reserve in the south-west designated as a biosphere reserve by the UNESCO;
- The government has undertaken a number of policies and programmes for the protection of endangered species. It has also promulgated various laws such as the Hunting law of 1974 which imposes fines on hunting protected species;
- "A basic set of policies has been developed by the new government ... to serve as the basis for future legislation, more specific policies and programmes in each of the most critical social, economic and political arenas". Such basic policies cover water protection, waste water recycling, balancing forest use and reforestation, decreasing the rate of desertification and the promotion of research such as cloud seeding techniques;
- Legislation includes a general law on the environment as well as five other laws covering natural and land resources and hunting;
- Environmental quality standards have been formulated to control ambient air and water quality as well as set concentration limits on soil contaminants;
- There are different governmental institutions working on the environment such as the State Committee for Environmental Control (SCEC) in addition to six research institutes working within its framework. The aim of such institutions is to protect environmental quality and ensure the rational use of natural resources;

- NGOs such as the Mongolian Association for the Conservation of Nature and the Environment (MACNE) and the Mongolian Women's Federation are actively working for nature conservation and increasing women's participation;
- Environmental education: An on-going series of programmes on environmental education such as the organization of courses at colleges and higher educational institutions, the holding of conferences and seminars as well as journal publication on the environment.

#### 4. RECOMMENDATIONS AND PRIORITIES ON ENVIRONMENT & DEVELOPMENT

- "Legislation ... is needed in the following areas":
  - Environmental impact statements;
  - Management of toxic and hazardous substances;
  - Establishing a national authority for solid waste management;
  - Establishing regulations on the safe handling of pesticides.
- "The following programmes would greatly enhance the ability of the Mongolian government to protect the environment and natural resources":
  - Surface water resources: A comprehensive action plan on watershed protection and water resources management should be developed;
  - Ground water resources: Hydrogeologic research on the most critical aquifers is to be enhanced;
  - Land resources: Focus on rangeland management, erosion and desertification control;
  - Air quality: A comprehensive programme on atmospheric quality enhancement is needed.
  - Land degradation: A multi-faceted approach including to reverse land degradation, soil erosion and desertification the launching of land use programmes, infrastructure development as well as reforestation;
  - Waste management: The development of efficient management programmes on waste and toxic substances are needed. Reusable waste materials must be identified;
  - Foreign assistance: Foreign environmental protection techniques and technology assistance in mining are needed;
  - Air quality: Measures are required to improve urban air quality, develop alternative fuel supplies as well as alternative energy sources. The upgrading of Mongolia's vehicle fleet is also needed in addition to acquiring emission control devices;

- Water and aquifers: There is a need for comprehensive programmes on watershed hydrology, aquifer hydrogeology research, water utilization planning, water quality monitoring and the elimination of wastewater discharges;
- Environmental education and research: Promoting research and public awareness on endangered wildlife is paramount.

## 5. FINANCIAL ARRANGEMENTS AND FUNDING REQUIREMENTS

- Until 1989, Mongolia's budget deficit was covered by loans primarily from the USSR. Nevertheless, Mongolia will continue to rely, at least in the short-term, on bilateral and multilateral donor assistance as well as on lending institutions;
- Oi Mod requests international help or joint venture capital for the upgrading of obsolete equipment in the timber industry;
- A ten-year project to reintroduce Przewalski's horse into Mongolia has been funded by MACNE as well as by environmental groups in Western Europe.

## 6. ENVIRONMENTALLY SOUND TECHNOLOGIES

- "Forms of renewable energy offering some potential in the MPR include: solar energy, wind-driven and hydro-powered electricity generation ... biogas".

## 7. INTERNATIONAL COOPERATION

- Mongolia is currently undertaking discussions with bilateral and multilateral donors on possible international assistance with a view to increasing the environmental safety of thermal power plants;
- MACNE is a member of the IUCN and collaborates with NGOs in several countries such as China, East Europe, the Soviet Union, the Netherlands and the UK on the promotion of international ecotourism;
- Mongolia's reserves such as Bogd Unl Preserve, are part of UNESCO's Man and Biosphere Global System;
- Since 1983, the Mongolian Meteorological Institute participates in the meetings of the World Meteorological Organization on a regular basis.

## 8. EXPECTATIONS FROM UNCED

No specific mention

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### List of References

#### Appendix A: Exhibits

See also

National report

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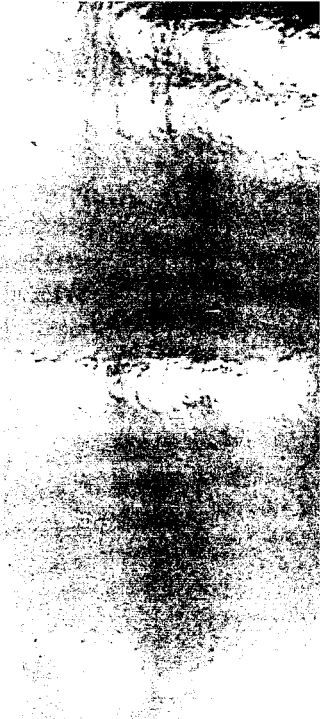
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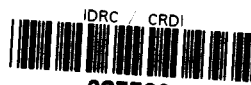
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*Be brotherly to one another, live in  
friendliness making the whole people  
walk the same road of the law ....*

Attributed to Ghengiz Khan  
*Secret History of the Mongols*  
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